MIKIRTUMOV, E

KOSTENKO, I.; MIKIRTUMOV, E.; KONDRAT'YEVA, M., redaktor; BODROV, A., tekhnicheskiy redaktor.

[Model airplanes] Letaiushchie modeli. Moskva, Izd-vo TsK VLKSM "Molodaia gvardiia," 1954. 84 p. (Microfilm) (MLRA 7:12)
(Airplanes--Models)

MIKIRTUMOV, E.

AID P - 3104

Subject : USSR/Aeronautics

Card 1/1 Pub. 58 - 9/19

Author : Mikirtumov, E., Kan. of Tech. Sci.

Title : Jet Aircraft

Periodical : Kryl. rod., 8, 10-14, Ag 1955

Abstract : The author is concerned with the working principles of a jet aircraft and its comparison with propeller aircraft. He describes the take off, maximum speed, range of speed, maneuverability and special features of piloting. A full page drawing shows a jet aircraft and its parts. The Mig-15 and Mig-18 aircraft and names of well known designers are mentioned. Diagrams and graphs.

Institution : None

Submitted : No date

Mikirtumov, E. B.

PHASE I BOOK EXPLOITATION GER/6316

Wassiljew, G. S. [G. S. Vasil'yev], N. M. Lyssenko [N. M. Lysenko], and E. B. Mikirtumow [E. B. Mikirtumov]

Aerodynamik and Flugmechanik bei schallnahen Geschwindigkeiten; eine kurzgefasste Darstellung in leichtverständlicher Form. [B e r l i n] (Aerodynamics and Flight Mechanics at Near-Sonic Velocities; a Brief Presentation in an Easily Comprehensible Form). Verlag des Ministeriums für Nationale Verteidigung [1959] 331 p. Transl. of Aerodinamicheskiye osobennosti reaktivnykh samoletov-istrebiteley (Aerodynamic characteristics of jet fighters). Moscow, 1956. 264 p. Errata slip inserted. Number of copies printed not given.

Translated by Dieter Rauch; Tech. Ed.: Fritz Seidler, Diploma Engineer.

PURPOSE: This book is intended for flight and engineering personnel of the Air Force. It may also be useful to students at technical institutes concerned with aircraft design.

Card 1/9

Aerodynamics and Flight Mechanics (Cont.)

COVERAGE: The book discusses the most important characteristics of high-speed aerodynamics. Flight mechanics, control characteristics, and maneuverability of jet-propelled fighter aircraft and their effect on the most important operational parameters are discussed. Particular attention is given to longitudinal and directional stability at sonic or near-sonic speeds. The relationships between the rotation of an airplane about its longitudinal axis and the altitude loss in pulling an aircraft out of a nose dive are explained. The spin peculiarities of modern aircraft, e.g., in initiating and terminating spins, and the causes for the nonuniformity of the rotation are treated in detail. Since some characteristic properties of modern jet aircraft are associated with the strongly sweptback airfoils of these airplanes, the book contains sections on the flow around a sweptback wing and the aerodynamic and flight-mechanical properties of aircraft with sweepback. The original Russian edition of the book was written as follows: Sections I, II, VI, and VII, by N. M. Lysenko, sections IV and V, by E. B. Mikirtumov, sections IX and X, by G. S. Vasil'yev, and section III, VIII, and XI,

by E. B. Mikirtumov and N. M. Lysenko. The German translation was made by Dieter Rauch and the drawings by Arthur Gärtner. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

BABAYEV, Nikolay Alekseyevich; GAYEVSKIY, Oleg Konstantinovich; KUDRYAVTSEV, Sergey Stepanovich; MIKIRTUMOV, Emmanuil Bogdanovich; KHUKHRA, Yuriy Stepanovich; KANEVSKAYA, M.D., redaktor; ANDRIANOV, B.I., tekhnicheskiy redaktor

[Airplane models; a manual for the first and second years of study] Aviatsionnyi modelizm; uchebnoe posobie dlia pervogo i vtorogo godov obucheniia. Pod boshchei red. E.B.Mikirtumova. Moskva, Izd-vo DOSAAF, 1956. 294 p. (MLRA 9:11)
(Airplanes--Models)

AID P - 5581

Subject : USSR/Aeronautics - bibliography

Card 1/1 Pub. 135 - 20/27

Authors : Mikirtumov, E. B., Eng.-Col., Cand. of tech sci. and N. M. Lysenko, Eng.-Lt. Col. Cand. of tech. sci.

Title : Speeds, accelerations, load factors

Periodical : Vest. vozd. flota, 6, 81-83, Je 1956

Abstract : Critical review of the book "Speeds, Accelerations, Load Factors" (Skorosti, Uskoreniya, Peregruzki), by R. A. Stasevich and P. K. Isakov, published by the Defense Ministry of USSR, Moskva, 1956, 84 pages.

Institution : None

Submitted : No date

MIKIRTUMOV, E.B., kand.tekhn.nauk; LEBEDINSKIY, M.S., kand.tekhn.nauk; STAKHURSKIY, A.Ye., red.; KORNEYEVA, V.I., tekhn.red.

[Model airplane building; collection of articles. A manual for leaders of model airplane clubs and teachers] Aviamodelizm; sbornik statei. Posobie dlia rukovoditelei aviamodel'nykh kruzhkov i uchitelei. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1960. (MIRA 13:5)

(Airplanes--Models)

BABAYEV, Nikolay Alekseyevich; GAYEVSKIY, Oleg Konstantinovich; IVANNIKOV, Dmitriy Andreyevich; KUDRYAVTSEV, Sergey Stepanovich; MIKIRTUMOV, Emmanuil Bogdanovich; KHUKHRA, Yu.; YEFREMOVA, Ye.V., red.; KARYAKINA, M.S., tekhn. red.

[Airplane modeling; manual for makers of airplane models and instructors of circles for the first and second training year] Aviatsionnyi modelizm; uchebnoe posovie dlia aviamodelistov i rukovoditelei kruzhkov pervogo i vtorogo godov obucheniia. Izd. 2., perer. i dop. Pod obshchei red. E.B.Mikirtumova. Moskva, Izd-vo DOSAAF, 1960. 286 p. (MIRA 14:5)
(Airplanes—Models)

MIKIRTUMOV, E., kandidat tekhn.nauk

Master the theory of stability! Kryl.rod. 11 no.3:22-23 Mr '60. (MIRA 13:5)
(Airplanes--Models)
(Stability of airplanes)

MIKIRTUMOV, E.B., inzh.-polkovnik, kand.tekhn.nauk

Airplane take-off. Vest.protivovozd.obor. no.2:41-44 F '61.
(MIRA 14:2)

(Airplanes—Take-off)

MIKIRTUMOV, E., kand.tekhn.nauk

Theorist of space flights. Kryl.rod. 12 no.8:3-5 Ag '61. (MIRA 14:8)

(Tsiolkovskii, Konstantin Eduardovich, 1857-1935)

MIKIRTUMOV, E.B., kand. tekhn. nauk, inzhener-polkovnik

Landing of an airplane. Vest. protivovozd. obor. no.11: 36-39 N '61. (MIRA 16:10)

(Airplanes--Landing)

LEBEDINSKIY, M.S.; [illegible] Ye..., red.; MIKHEYEV, [illegible]

[Design and build aircraft models] Proektirui, str[illegible] aviatsionnye modeli! Sbornik statei. Moskva, Izd-vo DOSAAF. No.1. 1963. 145 p. (Mira 17:7)

MIKIRTUMOV,E., kand. tekhn. nauk

Original data for designing propellers of flying models. Kryl. rod. 15 no.8: inserts 1-11 Ag '64. (MIRA 18:1)

MIKIRTUMOV, S. M.

Prostate Gland - Diseases

Hypertrophy of the prostate gland. Fel'd. i akush. No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

MIKIRTUMOV, S.M.

Air cyst of the small intestine. Khirurgiia no.10:87 O '55.
(MLRA 9:2)

1. Iz kafedry obshchey i gospital'noy khirurgii sanitarno-gigiyenicheskogo fakul'teta 1 Moskovskogo ordena Lenina meditsinskogo instituta.
(INTESTINES--TUMORS) (CYSTS)

MIKIRTUMOV, S.M.

Materials on surgery in cancer of the pancreas. Vest. khir. 77 no.1: 51-54 Ja '56 (MLRA 9:5)

1. Iz kliniki obshchey i gospital'noy khirurgii sanitarno-gigiyenicheskogo fakul'teta (zav. kaf. - prof. A.N. Velikoretskiy) 1-go Moskovskogo ordena Lenina meditsinskogo instituta.
(PANCREAS, neoplasms surg.)

MIKIRTUMOV, S. M. Cand Med Sci -- (diss) "Role of anticoagulants in the treatment of thrombophlebitis of the lower extremities." Mos, 1957. 14 pp (1st Mos Order of Lenin Med Inst im I. M. Sechenov), 200 copies (KL, 43-57, 91)

MIKIRTUMOV, S.

785. *The method of treatmen tof thrombophlebitis of lower extremities by dicoumarin (Russian text)* MIKIRTUMOV S. M. *Khirurgiia* 1957, 7 (112—115) Tables 3

Treatment of thrombophlebitis of the lower extremities by dicoumarin, an anticoagulant, is aetiological. Out of 102 patients observed by the author, 72 had pronounced hyperprothrombinaemia (72.5%). Efficacy of treatment depends on the method of administration of dicoumarin. Continuous treatment by low doses of dicoumarin is not so effective. The author recommends a method of interrupted treatment by dicoumarin, which takes into consideration the initial prothrombin value, as well as the individual sensitivity to the preparation. A pronounced therapeutic effect is usually found when the prothrombin value is decreased to about 5% of its initial value. Analysis of 9 cases of haemorrhagic complications is presented. (XVIII, 9)

MIKIRTUMOV, S.M.

One-stage pancreaticoduodenal resection in a case of tumor of the ampula of the common bile duct. Sov.med. 21 no.2:108-110 F '57. (MLRA 10:6)

1. Iz kliniki obshchey i gospital'noy khirurgii sanitarno-gigiyenicheskogo fakul'teta (zav. - prof. A.N.Vilikoretskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

(PANCREAS, neoplasms
surg., one-stage pancreaticoduodenal resection)

MIKIRTUMOV, S.M.

Physical culture therapy in the compound treatment of thrombophlebitis of the lower extrejities. Vop.kur.fizioter. i lech.fiz.kul't. 22 no.6: 45-50 N-D '57. (MIRA 11:2)

1. Iz kafedry obshchey i gospital'noy khirurgii sanitarno-gigiyenicheskogo fakul'teta zav. kafedroy - prof. A.N.Velikoretskiy) I Moskovskogo ordena V.I.Lenina meditsinskogo instituta imeni I.M.Sechenova.
(PHYSICAL THERAPY)
(BLOOD--CIRCULATION, DISORDERS OF)
(EXTREMITIES, LOWER--DISEASES)

MIKIRTUMOV, S.M. (Moskva)

Cancer of the rectum. Fel'd. i akush. 22 no.11:24-28 N '57.
(RECTUM--CANCER) (MIRA 11:2)

MIKIRTUMOV, S.M.

Dicoumarin treatment of thrombophlebitis of the lower extremities [with summary in English] Khirurgiia 33 no.7:112-115 Jl '57. (MIRA 10:11)

1. Iz kliniki obshchey i gospital'noy khirurgii sanitarno-gigiyenicheskogo fakul'teta (zav. - prof. A.N.Velikoretskiy) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova.

(COUMARIN, rel. cpds.
bishydroxycoumarin, ther. of thrombophlebitis of legs)
(THROMBOPHLEBITIS, ther.
bishydroxycoumarin in thrombophlebitis of legs)

MIKIRTUMOV, S.M.

Gastric phlegmon. Khirurgiia Supplement: 43 '57. (MIRA 11:4)

1. Iz 2-go khirurgicheskogo otdeleniya 6-y gorodskoy klinicheskoy bol'nitsy Moskvy.
(STOMACH--DISEASES) (PHLEGMON)

MIKIRTUMOV, S.M. (Moskva)

"Thrombophlebitis of the lower extremities and its treatment" by A.N.Shabanov, L.S.Soskin. Reviewed by S.M.Mikirtumov. Fel'd. i akush. 23 no.4:62 Ap '58. (MIRA 11:4)

(VEINS--DISEASES)

VELIKORETSKIY, A.N., prof.; MIKIRTUMOV, S.M., kand.med.nauk; KOCHIASHVILI, V.I., kand.med.nauk; KASAIKINA, T.N., kand.med.nauk; GALEYEV, M.A.; KAMALOV, M.Kh.; POTEKAYEVA, M.A., kand.med.nauk; SPASSKAYA, P.A.; VOIKOV, V.A., red.; GRECHISHCHEV, V.A., tekhn.red.

[Surgery for pancreatic cancer] Operativnoe lechenie raka podzheludochnoi zhelezy. Moskva, Izd-vo I-go Mosk.med.in-ta, 1959. 173 p. (MIRA 13:10)

1. Klinika obshchey i gospital'noy khirurgii sanitarno-gigiyenicheskogo fakul'teta 1-go Moskovskogo ordena Lenina meditsinskogo instituta im. I.M.Sechenova (for Kochiashvili, Mikirtumov, Velikoretskiy).

(PANCREAS--CANCER)

MIKIRTUMOV, S.M.; VARNOVITSKIY, G.I.; SMIRNOVA, K.F.

Diagnostic possibilities of intravenous cholegraphy in the detection of diseases of the biliary tract and gall bladder. Sov.med. 26 no.12:25-28 D '62. (MIRA 16:2)

1. Iz kafedry obshchey khirurgii (zav. - prof. A.N. Shabanov) sanitarno-gigiyenicheskogo fakul'teta i kafedry rentgenologii (zav. - prof. L.D. Lindenbraten) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.
(BILIARY TRACT—RADIOGRAPHY) (GALL BLADDER—RADIOGRAPHY)

MIKIRTUMOV, S.M., dotsent

Extent of resection in tumors of the large duodenal papilla. Vest. khir. no.1:50-58'63. (MIRA 16:7)

1. Iz kliniki obshchey khirurgii (zav.-prof. A.N.Shabanov) sanitarno-gigiyenicheskogo fakul'teta 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova na baze gorodskoy bol'nitsy no.24.(glavnyy vrach - V.A.Uspenskiy)
(DUODENUM--TUMORS) (DUODENUM--SURGERY)

SEMENDYAYEVA, M.Ye.; GUSEVA, T.M.; PONOMAREVA, O.A.; LAPKINA, G.V.; MIKIRTUMOV, S.M.

Activity of arginase in the blood serum and points of the liver during Botkin's epidemic hepatitis. Vop.med.virus. no.9:275-281 '64. (MIRA 18:4)

1. Iz laboratorii deystvitel'nogo chlena AMN SSSR prof. Ye.M. Tareyeva.

SHABANOV, A.N., prof.; MIKIRTUMOV, S.N., kand. med. nauk; [illegible], V.I., studentka VI kursa.

Postoperative pancreatitis in surgical practice. Khirurgiia 39 no.6: 56-62 Je '63.

1. Iz kliniki obshchey khirurgii (zav. - prof. A.N. Shabanov) sanitarno-gigiyenicheskogo fakul'teta i Moskovskogo [illegible] Lenina meditsinskogo instituta imeni Sechenova.

MUSKHELISHVILI, G.N.; MIKIRTUMOV, V.R.

Microflowmeter for liquids. Prib.i tekh.eksp. 6 no.5:174-176 S-O '61. (MIRA 14:10)

1. Institut elektroniki, avtomatiki i telemekhaniki AN Gruzinskoy SSR.

(Flowmeter)

22076

B/089/61/010/005/004/015
B102/B214

21.3200

AUTHORS: Gverdtsiteli, I. G., Nikolayev, Yu. V., Oziashvili, Ye. D., Ordzhonikidze, K. G., Kuskhelishvili, G. N., Kiladze, N. Sh., Mikirtumov, V. R., Bakhtadze, Z. I.

TITLE: An automatic cascade apparatus for obtaining highly concentrated heavy nitrogen isotope

PERIODICAL: Atomnaya energiya, v. 10, no. 5, 1961, 487-492

TEXT: The growing use of N^{15} in different domains (for example, N^{15} nitrates in homogeneous reactors; N^{15} has a thermal neutron capture cross section of $2 \cdot 10^{-5}$ b, whereas the value for natural nitrogen is 1.8 b) makes it of interest to develop suitable methods for the preparation of this isotope. The principal difficulty lies in the smallness (0.365%) of N^{15} content in the natural nitrogen. Spindel and Taylor (Ref. 1: W. Spindel, T. Taylor. J. Chem. Phys., 23, 981 (1955); 24, 626 (1956); Trans. N. Y. Acad. Sci., 19, 3 (1956); T. Taylor, W. Spindel. Proceedings of the

Card 1/4

22676
S/089/61/010/005/004/015
B102/B214

An automatic cascade apparatus for...

International Symposium on Isotope Separation. Amsterdam, North - Holland Publishing Company, 1958, p. 58; L. Kauder, T. Taylor, W. Spindel. J. Chem. Phys., 21, 232 (1953)) have developed a cascade apparatus with two columns allowing N^{15} to be obtained with 99.8 % purity. On this basis the authors of the present paper have developed and constructed an automatic cascade apparatus that allows 99.8 % pure N^{15} to be obtained from natural nitrogen by the method of NO-HNO_3 exchange. The yield is about 0.5 g per day. The chemical exchange NO-HNO_3 is described in Ref. 1, and also in the introduction of the present paper. Fig. 2 shows the scheme of construction of the actual automatic apparatus; 5 and 6 (in Fig. 2) correspond to the first and the second column of the cascade. The HNO_3 is conveyed from the reservoir 1 to the first column via a regulating valve 4 and a flow meter 2. The enriched solution is taken through a regulating valve 5 and a second flow meter 2 to the upper part of the second column for further enrichment, the remaining part flowing through the sleeve pipe 7 into the reactor. In the reactor 10 HNO_3 reacts with SO_2. The oxide

Card 2/ 4

An automatic cascade apparatus for...

mixture produced is led into the column 5 where it reacts with nitric acid with isotope exchange. The HNO_3 from column 6 enters the reactor 9 (which is analogous to the reactor 10). The nitric oxide from the reactors is brought back to the column 6 and reaches finally the lower part of the first column. The NO free of N^{15} is discharged from the cascade; the H_2SO_4 formed in the reactors is led off to the reservoir. The HNO_3 enriched in N^{15} is led away from the lower part of the second column through an electromagnetic dropper 8. Columns, valves, and connecting pieces are made of nonrusting steel of the type 1X18H9T (1Kh18N9T). The packing material is teflon. The reactors consist of quartz. The automatic regulation is related to the stabilization of the acid and water flows in the large and small reactor, to the stabilization of the quantity of the discharged product (acid), and the regulation of the gas addition. The regulating system consists of the automatic stabilizers, a signal block controlling the automatic regulators and stabilizers, and a feeding block. The whole regulating system is free from contacts in its working and must give an accurate and reliable performance over a period of

Card 3/4

S/089/61/010/005/004/015
B102/B214

An automatic cascade apparatus for. .

operation. The enriched samples (N_2 and NO) were subjected to a mass spectroscopic investigation which allowed the isotopic composition to be determined to an accuracy of ±0.02 %. Depending on the amount of nitrogen taken the concentrations are given by:

Nitrogen taken, g/day	N^{15} concentration, %
0.55	99.8
0.69	64
0.84	50

The authors thank V. A. Viasenk , R. V. Tishchenko, R. M. Sakandelidze, D. K. Puradashvili, G. L. Partsakhashvili, L. V. Yermakova, A. M. Gasparov, M. S. Mikhelashvili, L. I. Chernova, S. V. Bubnov, and I. A. Kuras for collaboration. There are 5 figures, 1 table, and 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc.

SUBMITTED: June 7, 1960

Legend to Fig. 2: Specifications of length in mm; (A) outlet of the product.

(NOTE: Due to the size of the figure, we were unable to fit it to a master.)

Card 4/4

MUSKHELISHVILI, G.N.; MIKIRTUMOV, V.R.

Transistorized precision voltage and current stabilizers.
Prib. i tekh. eksp. 8 no.6:116-118 N-D '63. (MIRA 17:6)

1. Institut elektroniki, avtomatiki i telemekhaniki AN GruzSSR.

MIKIRTUMOVA, Ye.V.

Late observations of minute blood volume following total and partial pneumonectomy in humans. Terap. arkh. 30 no.4:30-36 Ap '58. (MIRA 11:4)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i trudoustroystva invalidov.

(BLOOD VOLUME,
minute, after pneumonectomy (Rus)
(PNEUMONECTOMY,
postop. minute volume (Rus)

MIKIRTUMOVA, Ye.V. (Leningrad)

A case of chronic spontaneous methemoglobinemia. Klin.med. 36 no.7:153-154 Jl '58 (MIRA 11:11)

1. Iz klinicheskogo otdela (zav. - prof. M.I. Khvilivitskaya) Leningradskogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i trudoustroystva invalidov (dir. - kand.med. nauk P.A. Makkaveyskiy).

(METHEMOGLOBIN, case reports
chronic spontaneous (Rus))

MIKIRTUMOVA, Ye.V., vrach-ekspert

Importance of some hemodynamic indexes for disability evaluation of patients with chronic nonspecific pneumonia. Trudy LIETIN 2: 82-89 '59. (MIRA 13:7)
(DISABILITY EVALUATION) (PNEUMONIA) (BLOOD--CIRCULATION)

KHVILIVITSKAYA, Mariya Iosifovna. Prinimali uchastiye: ADAMOVA, A.V.; BOGOMAZOVA, V.P.; KALININA, Ye.V.; LIKHNITSKAYA, I.I.; MIKIRTUMOVA, Ye.V.; MIKHAYLOVA, N.F.; NIKIFOROVA, O.A.; SADOF'YEV, A.I.; SEL'KOV, Ye.A.; SOBOLEVA, A.V.; UL'YANOVA, L.S.; KHRUSTINA, S.B.; DEMBO, A.G., red.; KHARASH, G.A., tekhn. red.

[Adjustment of the body following pulmonary resection] O prisposobliaemosti organizma posle rezektsii legkogo. Leningrad, Gos. izd-vo med. lit-ry Medgiz, 1960. 170 p. (MIRA 14:9)

1. Kollektiv klinicheskogo otdela Leningradskogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov (for all except Khvilivitskaya, Dembo, Kharash).
(LUNGS—SURGERY)

MIKIRTUMOVA, Ye.V.

Comparative evaluation of certain clinical methods for determining minute blood volume. Terap.arkh. 32 no.12:60-63 '60. (MIRA 14:2)

1. Iz klinicheskogo otdela (zav. - prof. M.I. Khvilivitskaya) i otdeleniya funktsional'nykh metodov issledovaniya (zav. - dotsent I.I. Likhnitskaya) Leningradskogo nauchno-issledovatel'skogo instituta ekspertizy trudosposobnosti i organizatsii truda invalidov.
(BLOOD VOLUME)

LIKHNITSKAYA, I.I.; MIKIRTUMOVA, Ye.V.; SAZONOV, K.N.; GERASIN, V.A.

Methods for determining the minute volume of the blood in physiological and clinical investigations. Fiziol. Zhur. 46 no. 7:883-886 Jl '60. (MIRA 13:8)

1. From the clinico-experimental Department, Institute of the Work Capacity Expertise and the Invalid Labour Organization, and the Chair of Hospital Surgery of the Pavlov Medical Institute, Leningrad.

(BLOOD VOLUME)

MIKIRTYCHEV, V.A., inzh.

Building panels made of pressed sunflower husk. Masl.-zhir. prom. 25 no.8:33 '59. (MIRA 12:12)

1. Saratovskiy maslozavod No.2.
(Saratov--Building materials) (Sunflower seed)

MIKIRTYCHEVA, A.A.

Effect of hydroaeroionization in conjunction with other physical factors on hypertension. Med. zhur. Uzb. no.6:33-35 Je '61. (MIRA 15:1)

1. Iz Uzbekskogo gosudarstvennogo nauchno-issledovatel'skogo instituta kurortologii i fizioterapii imeni N.A.Semashko.
(AIR, IONIZED) (HYPERTENSION)

MIKIRTYCHYAN, K.L. (Tbilisi)

Nasal reflexotherapy in some forms of headache. Vrach.delo no.5: 541 My '57. (MLRA 10:8)

1. Fizioterapevticheskaya bol'nitsa
(HEADACHE) (ELECTROTHERAPEUTICS)

MIKIS, B.K. Cand Med Sci -- (diss) "Prenatal Prophylaxis of Rickets". Riga, 1958. 21 pp (Ministry of Public Health Latv SSR. Riga Med Inst).. (KL, 10-58, 121).

MIKISHA, A.M.; TSITSIN, F.A.

Some problems in the theory of the galactic potential. Astron.zhur. 33 no.6:885-889 N-D '56. (MLRA 10:1)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K. Shternberga.
(Stars—Distribution) (Milky Way)

25-6-25/46

SUBJECT: USA/Astronomy

AUTHOR: Mikisha, A.M., Scientific Contributor to the Government Astronomical Institute imeni P.K. Shternberga

TITLE: Tides and Galactics (Prilivy i galaktiki)

PERIODICAL: Nauka i Zhizn' - June 1957, #6, p 50 (USSR)

ABSTRACT: The tides of the sea are caused mainly by the attraction of the moon. The American astronomer Zwickey has discovered a number of galactics which have approached each other so closely that their mutual tidal influence can clearly be observed by means of a powerful telescope.

The article contains one photo.

ASSOCIATION:

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress.

Card 1/1

AUTHORS: Mikisha, A. M. and Tsitsin, F. A.

TITLE: On the distribution of mass in the Galaxy. (K voprosu o raspredelenii mass v galaktike).

PERIODICAL: Astronomicheskii Zhurnal, 1957, Vol.34, No.1, pp.45-54. (USSR).

ABSTRACT: A method for the determination of the mass distribution in the Galaxy has been given and discussed by Lindblad (1) and Parenago (2). Since neither "rigid rotation" (homogeneous spheroid; force in the galactic plane directly proportional to distance from the centre), nor "Keplerian rotation" (all mass concentrated in the nucleus; force in galactic plane inversely proportional to distance from the centre) are realised in the Galaxy, the above workers concluded that part of the mass is concentrated in the nucleus and the rest is distributed in the Galaxy (uniformly, in the first approximation). Assuming this, they try the following law of force:

$$F = F_1 + F_2 = \alpha R^{-2} + \beta R.$$

It is now pointed out that the above law is not an empirical one but results from the adoption of the particular model of the Galaxy. In their later work Lindblat and Parenago abandon, in fact, the above model and calculate not the mass of a homogeneous spheroid but the mass of a homogeneous flat disc. The correct formulation of this problem, i.e. the determination of the mass of a uniform spheroid, is given in this paper.

On the distribution of mass in the Galaxy. (Cont.)

The following symbols are used: δ - density of the nucleus, R_0 - distance of the sun from the centre of the Galaxy, R_G - radius of the Galaxy, G - gravitational constant, m_1 - mass of the nucleus, M - mass enclosed within a sphere of radius R_0, m_2 - mass of the Galaxy without the nucleus, m - general mass of the Galaxy (with nucleus), F_0 - force at a distance R_0, F_0' - derivative of the force, ρ_0 - density at a distance R_0, and $\varkappa_1$ and $\varkappa_2$ - parameters to be determined.

Initial distribution. A spherically symmetrical heterogeneous system is fully determined when the density $\rho(R)$ is given. The four equations (4) and (8) may be solved for the four unknowns ρ_0, δ, $\varkappa_1$, $\varkappa_2$, if a functional form is assumed for $\rho(R, \varkappa_1, \varkappa_2)$. It has been shown by Kukarkin and Parenago that

$$\rho(R, \varkappa_1, \varkappa_2) = \varkappa_1 \exp(-\varkappa_2 R)$$

Assuming this form and putting
$r = 1.5$ Kparsecs; $R_0 = 7.2$ Kparsecs; $R_G = 13$ Kparsecs;
$A = 19.5$ Km/sec/Kparsecs; $B = -13$ Km/sec/Kparsecs
one obtains (as a result of the solution of (4) and (8)):

$m_1 = 0.61 \times 10^{10}$ sun masses

$m_2 = 10.7 \times 10^{10}$ sun masses

On the distribution of mass in the Galaxy. (Cont.)

Homogeneous model. Taking a homogeneous model for the above initial heterogeneous distributions, equations (10), (11), (12), lead to:

$$m_1 = 0.72 \times 10^{11} \text{ sun masses}$$

$$m = 1.79 \times 10^{11} \text{ sun masses}$$

It may be shown, using equation (8), that

$$\rho(R_o) = \rho_o = 7.96 \times 10^{-25} \text{ gm/cc.}$$

This is seven to eight times less than the observed value in the Solar Vicinity. This indicates that the density distribution is far from being spherical.

The quantity ν_2 is equal to $-\frac{d}{dR}(\ln \rho)$ (see eq.9). In the initial distribution, it turns out to be 0.63 Kparsec^{-1}, which leads to

$$-\frac{d}{dR}(\lg \rho) = 0.27 \text{ Kparsecs}^{-1}$$

Observational data for this quantity are :

0.25 ± 0.27 Kparsecs^{-1} (spherical component)
0.11 ± 0.16 Kparsecs^{-1} (plane component)

The agreement of the numerical value of the logarithmic gradient of density in the galactic plane with observed value for stars of the spherical component suggests that dynamic influence of the component is higher than is usually assumed.

On the distribution of mass in the Galaxy. (Cont.)

Next, it is supposed that the initial distribution is an heterogeneous spheroid. Here it was assumed that

$$r = 1.5 \text{ Kparsec}; \quad R_o = 8 \text{ Kparsec};$$

$$A = 19.5 \text{ Km/sec Kps}; \quad B = -13 \text{ Km/sec/Kps}.$$

The symbols used are: r - radius of the equatorial section of the nucleus, R - radius vector in the equatorial plane of the spheroid, M - mass enclosed within a spheroid of major semi-axis R_o, e - eccentricity of the meridian section of the spheroid, and $\epsilon = \sqrt{1 - e^2}$.

The parameters $\mathcal{M}_1$, $\mathcal{M}_2$, δ and ϵ are obtained from the set of equations (14), where $F_1(R)$ and $F_2(R)$ are the attractive forces due to the nucleus and the spheroid respectively. The attraction due to an heterogeneous spheroid with the nucleus removed, $F_2(R_o)$, is then written down in the form of an integral. The latter is replaced by a sum of finite terms to simplify calculations, and the four equations (14) are solved for $\mathcal{M}_1$, $\mathcal{M}_2$, δ and ϵ. This leads to the following:

$$\epsilon = 1/7.1$$
$$\mathcal{M}_1 = 3.47 \times 10^9 \text{ sun masses}$$
$$\mathcal{M} = 1.26 \times 10^{11} \text{ sun masses}$$

Thus, the mass of the nucleus is 2.75% of the total mass of the initial heterogeneous spheroidal distribution.

On the distribution of mass in the Galaxy. (Cont.)

If the above initial distribution is represented by a homogeneous model, i.e. a homogeneous spheroid of the same with a nucleus, then

$$m_1 = 0.70 \times 10^{11} \text{ sun masses}$$
$$m = 1.24 \times 10^{11} \text{ sun masses}$$

Here the mass of the nucleus is 56.5% of the total mass.

Thus the attempt to represent a heterogeneous spheroidal distribution by a homogeneous model leads to an over-estimation of the mass of the nucleus by a factor of twenty!

The method used above for the model of a heterogeneous spheroid with constant ε, may be used to construct a model which will correspond (approximately) to a real Galaxy. In this, the Galaxy is considered as consisting of a homogeneous spheroidal nucleus and of a spheroid of variable density. The latter spheroid is conditionally divided into two spheroidal parts, one inside the other, the two parts being separated by a spheroidal layer through the sun (R_0 = 8 Kps). Here ε is taken as variable in the inner spheroid and constant for the outer one. This allows one to disregard the contribution due to the dividing layer which passes through the sun. Thus $\varepsilon = \varepsilon(R)$, where

$$\varepsilon = \varepsilon_R = \text{constant.} \qquad (R \leqslant r)$$
$$\varepsilon = aR + b \qquad (r \leqslant R < R_0)$$

On the distribution of mass in the Galaxy. (Cont.)

$$\varepsilon = \varepsilon_o = \text{constant} \qquad (R \geqslant R_o)$$

$$a = \frac{\varepsilon_o - \varepsilon_r}{R_o - r} \quad ; \quad b = \frac{\varepsilon_r R_o - \varepsilon_o r}{R_o - r} \quad ; \qquad \varepsilon_r = 1/2$$

The following values are then obtained:

$$\varkappa_2 = 1.07 \times 10^{-22} \text{ gm/cc.}$$

$$-\frac{d}{dR} \lg \varrho = 0.16 \text{ Kps}^{-1}$$

$$\varepsilon_o = 1/9$$

$$\varepsilon(R) = -0.0598R + 0.5897 \qquad (r \leqslant P \leqslant R_o)$$

$$\varkappa_1 = 1.07 \times 10^{-22} \text{ gm/cc}$$

$$\delta = 0.62 \times 10^{-22} \text{ gm/cc}$$

$$\mathfrak{m}_1 = 0.64 \times 10^{10} \text{ sun masses}$$

$$\mathfrak{M} = 1.87 \times 10^{11} \text{ sun masses}$$

Thus, $\mathfrak{M}_1$ is 3.5% of the general mass. It is pointed out that in the case of a homogeneous spheroidal model the figure was 60% (a factor of 17).

Results of the present paper are summarised in the Table on p.54. Column headings: Number (I), Model (II), logarithmic gradient of density $\frac{d}{dR}(\lg \varrho)$ (Kps^{-1}) (III), Mass of nucleus $\mathfrak{m}_1$ (sun masses) (IV) General mass of Galaxy $\mathfrak{M}$ (V), Relative mass

On the distr bu ion of is in the Gal xy. (Co t. of nucleus $\alpha = \frac{m_1}{m}$ (VI), ver-estimation of lative mass of the nucleus due by assuming homogeneous el $\frac{\alpha_{hom}}{\alpha}$ (VII), e (VIII).

In column (II); Row 1: Heterogeneous sphere with spherical homogeneous nucleus; Row 2: Heterogeneous spheroid with a spheroidal homogeneous nucleus (e = const.); Row 3: Heterogeneous spheroid with spheroidal homogeneous nucleus (e variable).

Column VII in the above table indicates that the homogeneous model cannot be assumed even as a rough approximation. Model No.3 leads to an estimation of the mass of the Galaxy and its nucleus, of the density in the galactic plane, and the variation of the concentration of matter in the galactic plane as a function of the distance from the centre of the Galaxy. 2 Tables and 1 Figure. 7 references, 5 of which are Russian.

State Astronomical Institute
imeni P. K. Shternberg.

Recd. July 9, 1956.

Mikisha, A M.

33-4-19/19

AUTHOR: Mikisha, A. M. and Tsitsin, F. A.

TITLE: On the application of the Virial Theorem to the mechanics of stellar systems. (O primenenii teoremy o viriale v dinamike zvezdnykh sistem.)

PERIODICAL: Astronomicheskiy Zhurnal, Vol.34, No.4, 1957 pp.678-680 (USSR)

ABSTRACT: It is shown that in a system of material points which obey Newton's law of gravitation, and whose moment of inertia is a linear function of time (or a constant), the magnitude of the potential energy is equal to twice the magnitude of the kinetic energy.

It is claimed that this statement is more general than that given by Parenago ("Kurs zvezdnoi astronomii", 3rd ed., page 397). Parenago states that the relation

$$2T + \Omega = 0$$

holds for "stationary or linearly non-stationary systems".

The author gives an example where the system is non-stationary and the cordition $\frac{I}{T}$ = constant is also satisfied (I is the moment of inertia). The Virial

Card 1/2

33-4-19/19

On the application of the Virial Theorem to the mechanics of stellar systems.

Theorem as formulated by the author applies in this case but in Parenago's formulation it does not. There are no figures, tables or references.

SUBMITTED: January, 30, 1957.

ASSOCIATION: Sternberg State Astronomical Institute. (Gos. Astronomicheskiy In-T im. P. K. Shternberga)

AVAILABLE: Library of Congress

Card 2/2

PONOMAREV, D.N.; MIKISHA, A.M.

List of misprints and errors in the Pulkovo Astrographic Catalog of 11,022 stars between 70° northern declination and the North Pole. Trudy Glav. astron. obser. Ser. 2 72:123-132 '58.
(MIRA 13:3)

(Stars--Catalogs)

S/169/62/000/007/013/149
D228/D307

AUTHORS: Romanyuk, V. A. and Mikisha, A. M.

TITLE: Influence of the geometric shape of a pendulum's knife edge on its movement

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 17, abstract 7A111 (Tr. In-ta fiz. Zemli, AN SSSR, no. 18 (185), 1961, 98-124)

TEXT: A differential equation is compiled for a pendulum's movement, with allowance for the influence of the curvature of a cylindrically shaped knife edge. The edge's curvature is taken into account by means of the magnitudes of ε and δ, which depend on the pendulum's angle of inclination φ, and their time derivatives. No allowance is made for the deformation of the knife edge of the pendulum and the pedestal under the effect of their own weight. The problem is solved completely for the case when the equation of the curve of the pendulum's knife edge is given in a parametric form as the graded series:

Card 1/3

Influence of the geometric ...

$$\varepsilon = \sum_{i=0}^{\infty} \varepsilon_i \varphi^i; \quad \delta = \sum_{i=0}^{\infty} \delta_i \varphi^i$$

The case, when the equation of the knife edge surface is given in a cylindrical system of coordinates ($r = r[\theta]$), is considered in addition. Here θ is the angle between the polar axis and the radius vector of point A -- the knife edge's point of contact with the pedestal in the deflected state. Formulas, allowing the problem to be reduced to what was previously considered and solved, are compiled for this case. Formulas are derived to determine the correction for the influence of the geometric shape of the pendulum's knife edge on its period. The comparison of formulas, formerly applied for the correction to the pendulum's period (for a circular cylindrical knife) with the deduced formulas shows that errors of up to 10×10^{-7} sec can be tolerated when using the classical formula. The correction to the period of the pendulum's oscillation,

which is specified by the influence of the parameter of b_4, has a systematic character and structure of amplitude correction. The influence of the amplitude correction and the influence of the parameter of b_4 mutually compensate each other in separate cases. The period of the pendulum's oscillations does not thereby depend on its amplitude. The influence of the knife edge's geometric shape on the period of the pendulum's oscillations results in the fact that the amplitude correction does not always fully take into account the dependence of the period of the pendulum's oscillation on its amplitude. [Abstracter's note: Complete translation.]

Card 3/3

MIKISHA, A.M.; TSITSIN, F.A.

Formula for relaxation time. Vest. Mosk. un. Ser. 3: Fiz., astron. 20 no.5. 74-77 S-O '65. (MIRA 18:11)

1. Kafedra zvezdnoy astronomii Moskovskogo universiteta.
Submitted June 1, 1964.

AUTHOR: Mikishev, G.N. 115-5-13/44

TITLE: Computation of a Dynamic Calibrator in Form of a Cantilever Beam with an Excentric (Raschet dinamicheskogo kalibratora v vide konsol'noy balki s ekstsentrikom)

PERIODICAL: "Izmeritel'naya Tekhnika", No 5, Sep-Oct 1957, pp 26-28 (USSR)

ABSTRACT: The article presents a complete computation of a dynamic calibrator for wire tension-indicators, based on the existence of such a cross-section within the length of the cantilever beam where the bending moment does not depend on the vibration frequency (the frequency interval from 0 to the start of natural vibration) and stays equal to the static bending moment in this cross-section. With a properly chosen excentric, which gives harmonic displacements of the beam end, the resistance of a tension-indicator glued to the aforementioned section shall also change harmonically and in proportion to the vibration amplitude of the beam end, and shall not depend on the vibration frequency. An editor's note to the article points out that errors have been committed in the formula for computation of the frequency of beam end's tear-off from the excentric which is contained in V.P. Zakharov's candidate dissertation as well as in the Machinebuilders'

SOV/179-59-1-6/36

AUTHOR: Mikishev, G. N. (Moscow)

TITLE: Experimental Determination of Ortho-Vibration of a Square Plate in Supersonic Flow (Eksperimental'noye issledovaniye avtokolebaniy kvadratnoy plastiny v sverkhzvukovom potoke)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 1, pp 154-157 (USSR)

ABSTRACT: The ortho-vibration (flutter) of a square flat plate placed in an airstream at supersonic speed with M = 1.7, 2.3, 3, was investigated. Two sides of the plate, perpendicular to the stream, were attached while the other two, parallel to the stream, were kept open. Several plates 300 x 300 mm and 250 x 250 mm were employed. Some of them were made of the steel 1Kh18N9 (σ_B = 80-120 kg/mm^2) and the duralumin D16AT (σ = 40 kg/mm^2). The thickness was varied: 0.3-0.5 mm for steel and 0.5-1.0 mm for duralumin. The method of positioning in the aerodynamic tube is shown in Fig. 1. The while set was placed horizontally so that the plate received the blow at a zero angle from above. The pressure was measured at various points in the middle of the stream and by the sides of the plate. The tensometers were used for determination of the beginning of vibrations as well as their

Card 1/4

Experimental Determination of Ortho-Vibration of a Square Plate in Supersonic Flow

frequency and type. The cables were carried outside through the walls of the tube. The results showed that [illegible] fore intensive vibrations of the plate, the spectrum of relative frequencies was distorted, which affected the vibration. Fig.3 shows the original type of vibration before distortion. The vibrations at points 2, 3 and 4 are shown in Fig.4, where ab - beginning of vibration with damping, v, g - intensive vibration with no damping effect. The evidence of the standing waves could be seen on a cinephotogram of a steel plate 0.5 mm thick (Fig.5). The destruction of the plate took place when the intensive ortho-vibration produced running waves (Fig.5, 9-14). The photograph of a destroyed 0.5 mm thick steel plate is shown in Fig.6. The durability could be calculated from the formula:

Card 2/4

Experimental Determination of Ortho-Vibration of a Square Plate in Supersonic Flow

$$\lambda = \frac{a^3 p \varkappa}{D} \beta_{1,2}$$

$$\left(\beta_1 = M, \ \beta_2 = \frac{M^2}{\sqrt{M^2 - 1}}, \quad M = \frac{c}{c_0} \right)$$

where a - length of plate, D - rigidity, p - pressure in the non-disturbed stream, $\varkappa$ - coefficient of polytropy, c, c_0 - velocities of the stream and sound respectively. The value of λ was calculated by A. A. Movchan as being equal to 814. Figs.7 and 8 show the results of the experimental data of plate durability (dotted line - β_1, continuous line - β_2, the ratio of thickness to length of the plate is plotted along the abscissa, and the ratio of pressure to the Young's modulus - on the ordinate). The experimental dots in Figs.7 and 8 were obtained as a mean of several tests: the first two dots represent a steel plate, the third dot represents a duralumin plate. The curves were calculated from a theoretical

Card 3/4

SOV/179-59-1-26/36

Experimental Determination of Ortho-Vibration of a Square Plate in Supersonic Flow

formula. As can be seen, both the theoretical calculation and experimental data show agreement. There are 5 figures and 1 Soviet reference.

SUBMITTED: June 9, 1958.

Card 4/4

29064
S/179/61/000/004/007/019
E195/E335

26.2145

AUTHORS: Mikishev, G.N. and Dorozhkin, N.Ya.

TITLE: Experimental investigation of free oscillations of liquids in vessels

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye. no. 4, 1961, pp. 48 - 53

TEXT: Free damped oscillations of liquids are defined by two basic parameters: natural frequency ω (rad/sec) and damping coefficient δ. This article is an account of experimental investigations on determination of these parameters in relation to relative fluid depth, relative amplitude of oscillation, Reynolds number and surface tension. The choice of liquids and size of tanks was considered from the point of view of obtaining the widest range of Reynolds number. The liquids varied in viscosity from 0.38 - 1.8 centistokes and tank diameters were in the range of 200 - 1 500 mm. The wave propagation was achieved by standard means but oscillogram recordings were made with the use of a specially designed transmitting

Card 1/5

Experimental investigation ...

element. This element consisted of two metal plates which were lowered into the liquid and attached to the tank wall For liquids which are good conductors the element reacted to the change in the active and capacitive components of conductivity whilst in the case of liquids which are poor conductors the element constituted a flat condenser which changed its capacitance with fluctuations in liquid level By virtue of its sensitivity (2 000 to 1 magnification on the oscillogram) the element could be used for almost any fluid The damping coefficients were determined from the curves of free damped oscillations and natural frequencies were obtained from oscillograms In the case of the flat-bottomed cylinder it was established that natural frequencies and damping coefficients were both independent of amplitude variations up to the value of $a_o = 0.1\, r_o$ and of fluid depth, for depth $h > r_o$. Natural frequencies showed hardly any variation with Reynolds number and were not influenced by surface tension for tanks of diameter over 100 mm, damping coefficients, however, whilst remaining independent of surface tension for tank diameters exceeding 400 mm were for smaller

Card 2/6

Experimental investigation . .

sizes rising rapidly with the increase in surface tension. Damping coefficients were also shown to be a function of $R^{(-1/2)}$. This means that Reynolds number similarity must be considered when applying model results for prototypes. On the basis of experimental data the following empirical formulae may be used for calculations of damping coefficients

$$\delta = \frac{0.45\pi}{\sqrt{R}}\left[\frac{1.3}{\text{sh } 1.84h/r_o}\left(\frac{1 + h/r_o}{\text{ch } 1.84h/r_o} + 1\right) + 4.09\right] \qquad (2.1).$$

For a fluid depth $h > r_o$ and smooth tanks, the above formula may be approximated to

$$\delta = \frac{1.84\pi}{\sqrt{R}} \qquad (2.2)$$

A theoretical formula ($\delta = 1.3\pi/R^{1/2}$) obtained by B.I. Rabinovich and based on boundary-layer theory gives

Experimental investigation ...

values of δ , 30-40% lower The investigation was extended to include tanks of both spherical and conical shapes. Natural frequencies and damping coefficients were determined from the fomulae.

$$\omega = C_1(g/r_o)^{1/2} \qquad \delta = C_2 1.84\nu/(R_o)^{1/2}$$

for spheres, and

$$\omega = C_1(0.8g/r_o)^{1/2} \qquad \delta = C_2 1.84\nu/(R_o)^{1/2}$$

for cones, where r^o is the radius of the free surface and r_o is the radius of spheres The dependence of C_1 and C_2 in spheres, on relative depth is shown in Figs. 14 and 15. For cones the variation of C_1 and C_2 with inclination angle α is shown in Figs. 16 and 17 The cone formulae were obtained for fluid depths $h > r_c$ and for amplitudes of up

Card 4/6

to 0.01 r° at the wall. For amplitudes exceeding 0.01 r° and angles of inclination $\alpha > 10^{\circ}$ the damping coefficient does depend on the amplitude of oscillations; thus, when $\alpha = 17^{\circ}$ and the amplitude equal 0.1 r° the value of damping coefficient is doubled.
There are 17 figures and 1 Soviet reference.

SUBMITTED: April 7, 1961

Fig. 14:

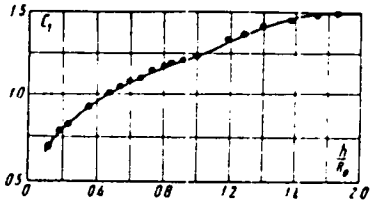
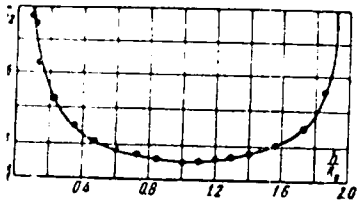


Fig. 15:



Card 5/6

MIKISHEV, G.N.; RABINOVICH, B.I. (Moscow)

"Some problems of the analysis of dynamical characteristic of mechanical systems with deformable elements."

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

L 43198-65 EWP(s)/EPF(n)-2/EWT(1)/EWT(m)/EWA(d)/EWP(u) Pd-1/Pu-4 EM/WW

ACCESSION NR: AP5001637 UR/0293/65/003/002/0208/0220

AUTHOR: Mikishev, G. N.; Nevskaya, Ye. A.; Mel'nikova, I. [illegible]; Doroshkin, N. [illegible] 36 B

TITLE: An experimental study of disturbed motion of a solid body having cavities partially filled with liquid

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 2, 1965, 208-220

TOPIC TAGS: rocket dynamics, liquid fuel rocket engine, fuel sloshing, hydrodynamic coefficient

ABSTRACT: This article is a study of the dynamics of a rigid body having cavities partially filled with liquid by means of experimental methods. The experimental studies are based on mechanical models having cavities with shapes and locations (with respect to the center of mass) geometrically similar to the original system. An analysis of the similarity criteria indicates that physical simulation can be used in studying this kind of problem. All possible trends in such experimental studies are analyzed. One experimental method developed by the authors for determining hydrodynamic coefficients (natural

Card 1/2

L 43193-65
ACCESSION NR: AP5009637

frequencies of the oscillation of a liquid, apparent masses) is presented. The mechanical model is described and the procedure for measuring certain parameters and obtaining final values of the hydrodynamic coefficients is presented. It is indicated that, in general, the method presented gives good results when the logarithmic decrement of the damping oscillations of the liquid is smaller than 0.2. However, in many cases, it can be used when the logarithmic decrement exceeds that value. As an illustration, dimensionless hydrodynamic coefficients determined by the experimental method are presented for bodies having cavities of the form of a circular cylinder with a flat bottom, sphere, and torus and compared with theoretical results given in the article. by B. I. Rabinovich and others (Kosmicheskiye issledovaniya, v. 3, no. 2, 1965, 179-207). The comparison of results shows that for the majority of hydrodynamic coefficients, the theoretical results agree well with experimental results. Orig. art. has: 21 figures and 12 formulas. [LK]

ASSOCIATION: none

SUBMITTED: 06Jan64 ENCL: 00 SUB CODE: AS,ME
NO REF SOV: 007 OTHER: 006 ATD PRESS: 3242

Card 2/2 ME

SOV/138-58-8-10/11

AUTHORS: Volonchunas, A. O; Shkikunas, V. and Mikisheva, A. P.

TITLE: Application of Designs on Rubber Boots (Nanesenlye risunka na tsvetnyye rezinovyye sapozhki)

PERIODICAL: Kauchuk i Rezina, 1958, Nr 8, p 36 (USSR)

ABSTRACT: Previous methods of applying designs by typographic methods and special transfers are mentioned. The authors used this latter method and applied the adhesive "Nairit" on a 6% natural rubber solution and subsequent vulcanisation. The colour of dyes change slighly during vulcanisation. Satisfactory results were obtained when the designs were applied on non-vulcanised rubber with offset colours. After vulcanisation it is recommended to apply colourless lacquer based on SKB rubber. There is 1 Picture.

ASSOCIATION: Kombinat "Inkaras" ("Inkaras" Combine)

Card 1/1

MIKISHIN, N.

AID P - 2668

Subject : USSR/Aerodynamics

Card 1/1 Pub. 58 - 6/20

Author : Mikishin, N.

Title : In my flying group

Periodical : Kryl. rod., 7, 8-9, Jl 1955

Abstract : The author, an instructor, reports how he organized and directed the training of his group. Names are mentioned. Photo of the members of the group.

Institution : Regional Aeroclub of Khar'kov

Submitted : No date

MIKISHOV, M.I.

General characteristics of the agricultural atlas of the U.S.S.R. (MIRA 15:4)
Sbor.st.po kart. no.12:5-18 '61.
(Agriculture—Maps)

MIKISHVILI, Sh.M.

Surface tension of molten slags in the system calcium oxide - manganous oxide - silica. Trudy Inst. met. AN Gruz. SSR 10:39-45 '60. (MIRA 13:12)

(Slag) (Surface tension)

BENESOVA, O.; HORVATH, M.; MIKISKA, A.

Determination of depth and duration of narcosis according to electrophysiological properties of the cerebral cortex. Cesk. fysiol. 5 no.2:168-173 23 June 56.

1. Kontrolni ustav farmaceuticky, Praha, Ustav hygieny prace a chorob z povolani, odd. fysiologie vyssi nervove cinnosti, Praha.

(ANESTHESIA,
EEG of electrophysiol. properties of cerebral cortex in determ. of depth & duration of anesth. (Cz))

(ELECTROENCEPHALOGRAPHY,
determ. of depth & duration of anesth. by electrophysiol. properties of cerebral cortex (Cz))

BENESOVA, O.; HORVATH, M.; MIKISKA, A.

Evaluation of depth and duration of anesthesia according to electrophysiological properties of the cerebral cortex. Physiol. bohem. 5 no.2:188-194 1956.

1. Vortrag am. 3. Ganzstaatlichen Kongress der tschsl. Physiologen, Pharmakologen und Biochemiker in Prag vom 19. bis 22. 10. 1954. Pharmazeutisches Kontrollinstitut, Prag Institut fur Arbeitshygiene, Abt. Physiologie der Hoheren Nerventatigkeit, Prag.

(ANESTHESIA,
EEG determ. of depth & duration (Ger))
(ELECTROENCEPHALOGRAPHY,
in anesth., determ. of depth and duration (Ger))

HORVATH, M.; MIKISKA, A.; PARIZEK, O.

Method of chronic electroencephalograph in rabbits; for toxicological and other studies. Pracovni lek. 8 no.6: 426-429 Dec 56.

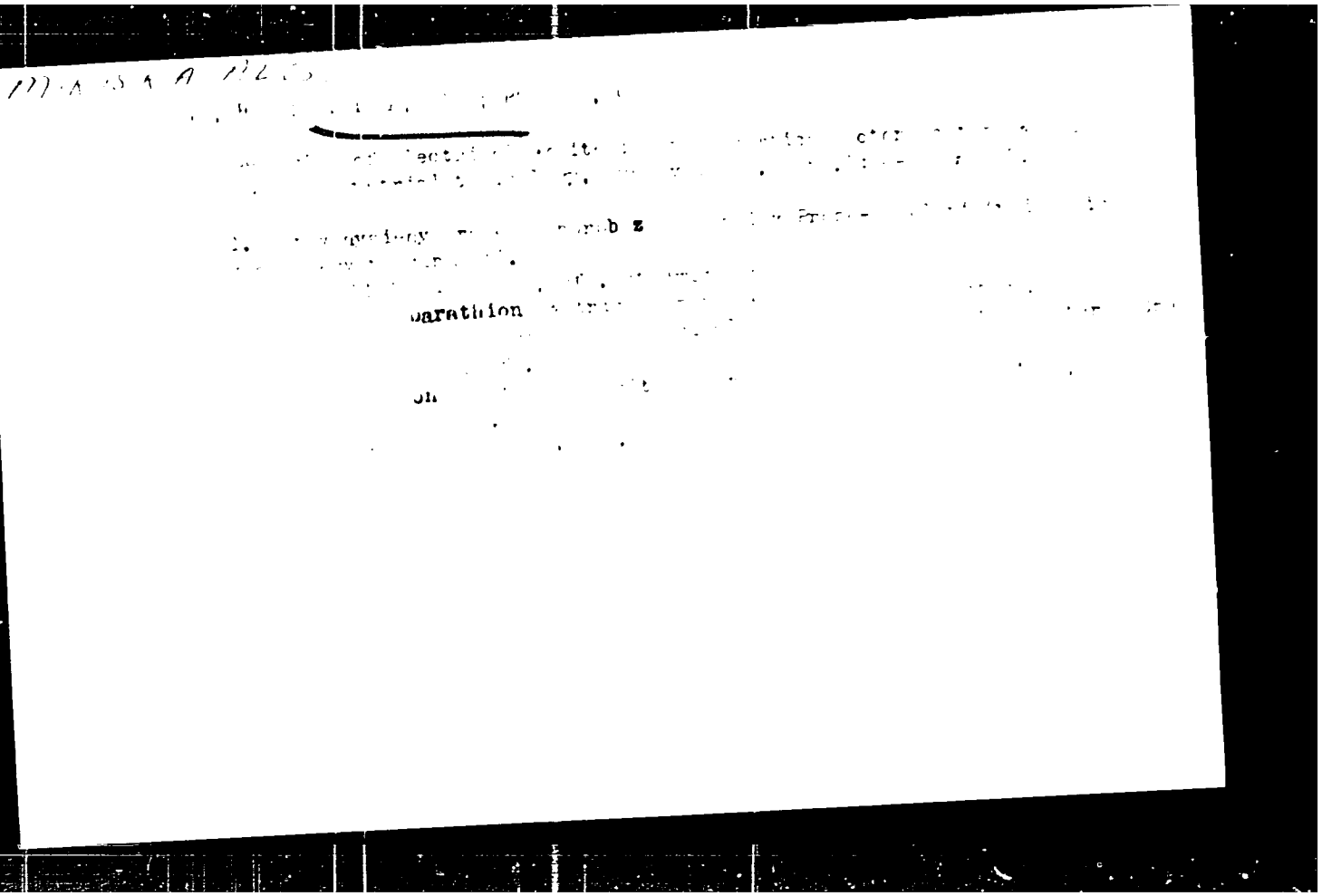
1. Ustav Hygieny prace a chorob z povolani v Praze, oddeleni Fysiologie vyssi nervove cinnosti.
(ELECTROENCEPHALOGRAPHY
implanted electrodes in rabbits (Cz))

HORVATH, Milen; [redacted], Alos

Electroencephalographic effects of carbon disulfide on the central nervous system of rabbits. Pracovni lek. 9 no.1:22-28 Mar 57.

1. Ustav hygieny prace a chorob z povolani v Praze, oddeleni fysiologie vyssi nervove cinnosti.

(CARBON DISULFIDE, eff.
on CNS in rabbits, EEG (Cz))
(NERVOUS SYSTEM, eff. of drugs on
carbon disulfide in rabbits, EEG (Cz))



MIKISKA, Alois

Relay equipments for measuring the reaction time. Activ. nerv. sup. 3 no.2:187-190 '61.

1. Ustav hygieny prace a chorob z povolani, Praha (reditel prof. J. Teisinger), oddeleni fyziologie v. n. c.

(ELECTROPHYSIOLOGY equip & supply)

HORVATH, M.; FISCHER, R.; FORMANEK, J.; FRANTIKOVA, D.; MIKISKA, A.

The strain on higher nervous activity in mechanized and automatized work and the possibility of its examination. Pracovni lek. 13 no.4: 163-168 My '61.

1. Ustav hygieny prace a chorob z povolani, Praha; Vyskumny ustav spoju, Praha.

(INDUSTRIAL MEDICINE)
(CENTRAL NERVOUS SYSTEM physiol)

MIKISKA, A.

Simultaneous registration of pulse frequency and electromyographic data on a magnetic tape in physiological studies. Fiziol. zhur. 47 no.4:524 Ap '61. (MIRA 14:6)

1. Institut gigiyeny truda i profzabolevaniy, Praga.
(ELECTROMYOGRAPHY) (ELECTROCARDIOGRAPHY)
(PULSE)

MIKISKA, A.

Analysis of bio-electrical potentials with the use of recording on magnetic tape. Activ. nerv. sup. 4 no.2:143-146 '62.

1. Ustav hygieny prace a chorob z povolani, Praha.

(PHYSIOLOGY equip & supply)
(ELECTROENCEPHALOGRAPHY)
(ELECTROMYOGRAPHY)

CZECHOSLOVAKIA

MIKISKA, A.; [Affiliation not given].

"To the Article by J. Zoman: Coding and Transmission of Information in the Nervous System."

Prague, Activitas Nervosa Superior, Vol 5, No 4, 1963, [illegible]

Abstract: In application of [illegible] of problems on a computer it is necessary to know whether this application is at all possible; the feasibility of the approach must be proved. Theory of information is discussed; some facts concerning neurophysiology and coding in the nervous system are presented. Language communications are studied. The transmission of information in the nervous system and the method of analyzing electroencephalographs are discussed.
4 Western, 6 Czech, 2 Russian references.

1/1

CZECHOSLOVAKIA

A. MIKISKA, Institute of Work Hygiene and Occupational Diseases (Ustav hygieny prace a chorob z povolani,) Prague.

"Automatic Integration of Electroencephalogram and Electromyogram."

Prague, Ceskoslovenska Fysiologie, Vol 12, No 2, 1963; pp 151-152.

Abstract: A brief summary of the basic principles of known EEG and EMG integrators; short description of key points of one developed by author, with schematic diagram.

1/1

MIKISKA,A.; MIKISKOVA,H.

Determining neurotoxicity by some electrographic methods (EEG, ECG, EMG) in guinea pigs. Activ. nerv. sup. 6. no.1:56-59 '64

MIKISKOVA, H.

Comparative effects of trichloroethylene and trichloroethanol on cortical function and spinal reflexes. Activ. nerv. sup. 4 no.2: 181-182 '62.

1. Ustav hygieny prace a chorob z povolani, Praha.

(SPINAL CORD pharmacol) (CEREBRAL CORTEX pharmacol)
(TRICHLOROETHYLENE pharmacol) (ALCOHOL ETHYL rel cpds)

MIKISKA,A.; MIKISKOVA,H.

Determining neurotoxicity by some electrographic methods (EEG, ECG, EMG) in guinea pigs. Activ. nerv. sup. 6. no.1:56-59 '64

MIKISKOVA-KRALOVA, Hana (Praha II, Ke Karlovu 4)

Chain motor conditioned reflexes in rabbits; procedural technic with complex stimulus and method sensitivity in various physiological conditions and in infections caused by Pasteurella multocida strains. Pracovni lek. 9 no.4: 309-313 Sept 57.

1. Ustav hygieny prace a chorob z povolani, Praha.

(REFLEX, CONDITIONED,
chain motor, in var. physiol. cond. & Pasteurella multocida infect. in rabbit (Cz))

(PASTEURELLA, infect.
multocida in rabbits, determ. of chain motor cond. reflexes (Cz))

MIKISZEW, J.

MIKISZEW, J. What to improve in the management of the State Grain Enterprises p. 2

vol 7, no. 12, Dec. 1956
GOSPODARKA ZBOZOWA
AGRICULTURE
Warszawa, Poland

So: East European Accession vol 6, no. 3, March 1957

MIKIT, A.A., inzh.; PADCHIN, A.I., inzh.

Mechanization and automation of timber drying in woodworking enterprises in Latvia. Mekh.i avtom.proizv. 17 no.1:26-27 Ja '63. (MIRA 16:2)

(Automation) (Lativa—Lumber—Drying)

MIKIT, E.A., inzhener; PADCHIN, A.I., inzhener; ZAYTSGARI, Sh.Z., redaktor; SITNIL'NIKA, S.I., tekhnicheskiy redaktor

[Technological processes in sawmill work] Tekhnologicheskie protsessy lesopil'nogo proizvodstva. Moskva, Goslesbumizdat, 1952. 65 p. (Sawmills) (MLRA 10:1)

MIKIT, [illegible]E, A.

Saws

Increasing the productivity of longitudinally sawing circular saws. Les. prom. 12 no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August, 1952 1953. Unclassified.

1. [illegible]TKIT, Ye. A., Eng.

2. USSR (600)

4. Power Engineering

7. Raising the efficiency of power economy, Der. i lesokhim. prom., No. , 19[illegible].

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.